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Before the  
**FEDERAL COMMUNICATIONS COMMISSION**  
Washington, DC 20554

Federal Communications Commission  
Office of Secretary

In re )  
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Cellular Service and Other Commercial ) WT Docket No, 97-112  
Mobile Radio Services in the Gulf of )  
Mexico )  
 )  
Amendment of Part 22 of the Commission's ) CC Docket No. 90-6  
Rules to Provide for Filing and )  
Processing of Applications for Unserved )  
Areas in the Cellular Service and to )  
Modify Other Cellular Rules )

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To: The Commission

**COMMENTS OF RADIOFONE, INC.**

Radiofone, Inc. ("Radiofone"), by counsel and pursuant to FCC Rule Section 1.415, submits its comments on the Commission's April 16, 1997, *Second Further Notice of Proposed Rule Making*, FCC 97-110 ("NPRM") in this proceeding, and shows the following:

**I. Introduction.**

1. The *NPRM* seeks to resolve outstanding issues relating to service area modifications by Gulf of Mexico cellular licensees and conflicts between those Gulf of Mexico licensees and adjacent land-based cellular operators. In addition, the *NPRM* proposes to apply the principles established for the cellular service in this proceeding to the other wide-band commercial mobile radio services, the personal communications service ("PCS") and the special mobile radio service ("SMR").

2. Radiofone is the licensee of several MSA and RSA systems situated along the Louisiana coastline, adjacent to the GMSA. As such, it has a particular interest in the issues to be resolved herein. The absence of definitive rules governing the provision of

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cellular service in Gulf waters immediately adjacent to its land-based CGSA has hindered Radiofone's ability to expand its existing cellular service, and has resulted in its inability to provide the public adequate service along certain portions of its service area in the vicinity of the coastline.

3. The *NPRM* proposes to establish within the Gulf of Mexico Service Area ("GMSA") a Coastal Zone which would consist of the portion of the GMSA extending from the Gulf of Mexico Coastline for 12 nautical miles into the Gulf. In that Coastal Zone, Phase II unserved area licensing rules would apply. Outside the Coastal Zone, within the GMSA, Gulf of Mexico licensees would be able to move or add transmitter sites without being subjected to competing applications. To facilitate its plan, the *NPRM* proposes to dismiss pending Phase II applications to serve the GMSA or which propose de minimis extensions into the Gulf.

4. As Radiofone shows below, resolution of issues respecting the Gulf are long overdue. Not only have these outstanding issues stymied provision of cellular service in the Gulf, but they have delayed the legitimate growth and expansion needs of coastal land-based licensees. The *NPRM* presents an acceptable concept for resolving the problems faced by both land and water-based licensees. Although certain of the specific proposals require modification to achieve the goal of facilitating both land and water-based expansion and flexibility, on the whole, the *NPRM's* proposals would serve the public interest and should be adopted with appropriate modifications.

## II. Discussion.

### A. Radiofone supports partitioning the GMSA into an Exclusive Zone and a Coastal Zone.

5. Radiofone supports the establishment of a Gulf Coastal Zone and an Exclusive Zone. It agrees with the *NPRM* that cellular usage along the coastal areas of the Gulf is substantial and that a policy designed to ensure cellular service along coastal waterways is in the public interest. Thus, both land and Gulf-based licensees should be able to serve the Coastal Zone so that the public will be better ensured of available service.

6. Radiofone further supports the *NPRM's* proposal to allow Gulf licensees to modify and add transmitter sites in the Exclusive Zone without being subject to competing applications. Gulf licensees' need for flexibility was amply shown by the record developed in *Petroleum Communications, Inc. v. FCC*, 22 F.3d 1164 (D.C. Cir. 1994). Because of the transitory nature of oil drilling and the lack of other suitable Gulf transmitting sites, restricting the ability of Gulf licensees to modify and add sites would place an unwarranted limitation upon Gulf licensees' ability to provide adequate service, without serving any countervailing public interest objective.<sup>1/</sup>

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<sup>1/</sup> This is to be contrasted with the situation with land-based licensees where the unserved area rules facilitate provision of seamless cellular service by affording others an opportunity to apply for areas not built-out by the Phase I licensee. In the Gulf, application of the unserved area rules serves no such purpose due to the limited transmitter sites available for use. Simply stated, the reason Gulf licensees generally fail to serve an area is because they have no available place to locate a transmitter; and neither would anyone else.

7. Having endorsed the concept of the Coastal Zone, Radiofone addresses below several issues arising from its creation. These include the Coastal Zone's appropriate boundaries; the means of measuring service in the Coastal Zone; the use of land-based transmitter sites by Gulf licensees making application in the Coastal Zone; and the treatment of pending applications.

**B. Coastal Zone boundaries.**

8. The *NPRM's* proposal for a 12 nautical mile Coastal Zone is inadequate; rather, the Coastal Zone should extend at least 25 nautical miles from the shoreline. As the table presented below shows, most cells operating with even modest power will have service contours equal to or exceeding a radius of 12 nautical miles, even when calculated using the land-based 32 dBu contour method. Applying the water-based contour calculation method results in it being virtually impossible to design a cell which would confine its contours to the Coastal Zone.

<b>HAAT</b>	<b>ERP</b>	<b>Land-based Contour</b>	<b>Water-based Contour</b>
30 m	50 watts	9.7 mls (8.4 nm)	21.4 mls (18.6 nm)
60 m	50 watts	12.3 mls (10.7 nm)	26.3 mls (22.8 nm)
90 m	50 watts	14.1 mls (12.2 nm)	29.7 mls (25.8 nm)
30 m	100 watts	10.9 mls (9.5 nm)	23.7 mls (20.6 nm)
60 m	100 watts	13.9 mls (12.1 nm)	29.2 mls (25.4 nm)
90 m	100 watts	15.9 mls (13.8 nm)	33.0 mls (28.7 nm)

9. Even though the Coastal Zone has substantial service demand, demand within the zone is nevertheless not likely to approach the level of land-based transmitters. It is therefore important from a cost-benefit standpoint to serve the area with relatively large cells. An ideal cell design -- at least until it

is shown that demand justifies cell splitting -- would suggest cell sites of 100 watts ERP and approximately 60 meters HAAT.<sup>2/</sup> Assuming these sites are located near the coastline, the radius of the cell site extending out into the Gulf would be 13.9 statute miles (12.1 nautical miles) as calculated employing the land-based 32 dBu method and 29.2 statute miles (25.4 nautical miles) employing the water-based method. It is readily apparent that a 12 nautical mile wide Coastal Zone is inadequate to accommodate a cell of this size. Unless the Coastal Zone is widened, virtually all Coastal Zone coverage proposals by land-based licensees and others would extend impermissibly into the Exclusive Zone. Likewise, Coastal Zone coverage proposals from Gulf licensees would extend impermissibly into land-based licensees' CGSAs. Therefore, unless the Coastal Zone is widened, the *NPRM's* intent to foster service in this area will be nullified.

**C. Service boundary measurement.**

10. The means of measuring service contours in the Coastal Zone is a difficult issue. It is a scientific fact that radio coverage in the cellular frequency range over water is significantly larger compared to coverage over land, due to the lack of uneven terrain over water (since water is generally flat) and the absence of signal loss due to vegetation. However, some coastal land-areas, and especially those in the vicinity of the

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<sup>2/</sup> ERP significantly greater than 100 watts may result in talk-in, talk-out imbalance. Height above 60 meters AGL may result in difficulties in obtaining FAA clearance due to the use of the coastline for visual flight regulation.

Gulf contain considerable wet-lands and lack significant variation in terrain. The determination of an appropriate means to measure the distance to the limit of the service contour thus necessitates a certain degree of compromise and averaging.

11. The Commission's rules currently specify separate methods of determining distance to service contours for Gulf and land-based licensees. Land-based systems must determine their service contour limits by using the following formula:  $d = 2.51 \times h^{.34} \times p^{.17}$ , while Gulf systems must determine their contour limits with the following formula:  $d = 6.895 \times h^{.30} \times p^{.15}$ . As a result of these two disparate formulas, the calculated contours of land-based systems are significantly smaller than the calculated contours of Gulf systems. The difficult issue is how to measure the service contour limit when a cell covers both significant water and land areas. Radiofone suggests the Commission adopt the following provisions. First, if the two to ten mile portion of any radial of a cell is 75 percent or more over the GMSA, the distance to service contour for that radial should be measured by the water-based method. Correspondingly, if the two to ten mile portion of any radial is 75 percent or more over non-GMSA area, the distance to service contour for that radial should be measured by the land-based method. Where the two to ten mile portion of any radial of a cell exceeds 25 percent land and water coverage, Radiofone suggests employing a hybrid formula to measure the distance to service contour of the radial which is an average of the water and land-based formulas. That formula would be:  $d = 4.713 \times h^{.32} \times p^{.15}$ .

12. Notwithstanding the discussion above, however, for the purposes of calculating the CGSA of a land-based carrier, the land-based formula should always be employed to avoid disturbing existing system boundaries or CGSA calculations between adjacent land-based systems.

**D. Land-based transmitters.**

13. The *NPRM* (at para. 40), suggesting that almost all coastal areas have been built out, proposes to abandon the outright prohibition on Gulf licensees use of land-based transmitters without the consent of the land-based licensee, and instead to apply the Commission's SAB extension rules. Radiofone is wary of this proposal. The premise that land-based licensees have fully built-out their systems is suspect because large numbers of applications proposing to build-out areas bordering the GMSA have been on hold pending resolution of the issues to be resolved in this proceeding. Because, the Commission is proposing to dismiss those pending applications -- a matter Radiofone addresses below -- the dismissal of these applications may result in substantial coastal areas being subjected to Phase II filings by Gulf licensees. This would be unfair to coastal licensees. The prohibition on Gulf licensees proposing land-based sites should therefore be retained unless the respective land-based licensee gives consent.

**E. Treatment of pending applications.**

14. To facilitate licensing within the Coastal Zone, the *NPRM* (at para. 4) proposes to treat the Coastal Zone as Phase II

territory, dismiss all applications pending which would extend contours into the Coastal Zone, including Phase II applications and applications proposing a de minimis extension into the Gulf, and select from among mutually exclusive applications by competitive bidding. The proposals to treat the Coastal Zone as Phase II territory and to select from among mutually exclusive applications by competitive bidding are reasonable and Radiofone does not object to them. The proposal to dismiss pending applications for the territory is unnecessary and prejudicial, however.

15. Existing licensees who have filed Phase II or other applications with de minimis extensions into the Gulf have done so in good faith and in accordance with existing rules. Moreover, they have devoted considerable resources to the filing and prosecution of those applications. It would be unfair to dismiss those applications, as well as wasteful of public and private resources. Furthermore, important rights to cut-off protection in land-based areas might be lost by such dismissals. Radiofone suggests instead that the Commission afford all pending applicants 30 days from the effective date of the revised rules to amend their applications as may be necessary as a result of the revised rules. During that time the Commission would also accept applications mutually exclusive to those pending applications to afford other interested parties the opportunity to compete for the Gulf Coastal Zone. Such proposals, however, would not be allowed to intrude into land areas which enjoy cut-off protection under the rules, and those applications enjoying such cut-off protection of proposed

land area coverage would be processed to grant. To the extent mutually exclusive situations exist for the Coastal Zone, the parties would then be entitled to negotiate for a 30-60 day period to resolve the mutual exclusivity. If the conflict could not be remedied by negotiation among the parties, the Commission would then utilize its competitive bidding procedures to issue authorizations for the disputed territory.

### **III. Conclusion.**

16. In sum, the *NPRM's* proposals for resolving Gulf of Mexico licensing issues would serve the public interest. The creation of the Coastal and Exclusive Zones would afford land-based coastal licensees the opportunity to expand their service in and around the shorelines of their MSAs and RSAs, while affording Gulf licensees flexibility to modify and add transmitter sites as the location and number of oil platforms change. Moreover, it will not unduly hinder the ability of Gulf licenses to operate in the Coastal Zone, if they can obtain a suitable transmitter site to do so without intruding upon the CGSA's of land-based systems. However, to provide the public optimum service, the size of the Coastal Zone should be set at a minimum of 25 nautical miles, with cell site distances to service contours being determined depending on the extent of land and water coverage. Moreover, no need exists to dismiss pending applications for Phase II authority into the Gulf or which propose de minimis contour extensions into the GMSA.

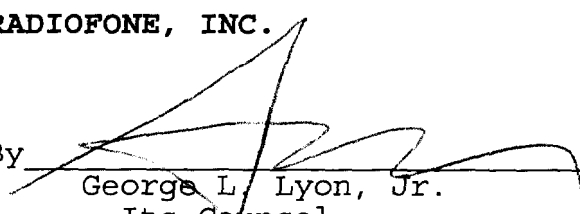
17. Since the court's decision in *Petroleum Communications, Inc. v. FCC*, 22 F.3d 1164, licensing of cell sites with even

minimal contour extensions into the Gulf have been on hold. This has resulted in the inability of coastal land-based licensees to improve their service to the substantial segment of subscribers using their cellular telephones in or near the shoreline. Radiofone urges the Commission to expedite its consideration and resolution of this proceeding so that this substantial segment of the public may be provided quality service.

Respectfully submitted,

**RADIOFONE, INC.**

By

  
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